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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,344	03/09/2004	Yuichiro Ohta	2803.70023	1978

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EXAMINER

LUND, JEFFRIE ROBERT

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,344

Applicant(s)

OHTA, YUICHIRO

Examiner

Jeffrie R. Lund

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-4 do not clearly point out and distinctly claim the “mechanism configured for fixing said vacuum pump so as not to shrink said flexible pipe”. It is not clear what the mechanism is or how it fixes the flexible pipe so as not to shrink at the time of evacuation. The applicant needs to add further structural detail, such as that found in new claims 8-11, to clearly identify what the mechanism is.

Claim 8 is indefinite in that it is not clear in what “direction in which said flexible pipe extends” because any line i.e. the line along which the pipe extends, has two directions.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicants Admitted Prior Art (AAPA) in view of Sweeny US Patent 1,559,804.

The AAPA discloses vacuum bonding chambers for bonding liquid crystal display devices that include flexible pipe mounted on a floor panel. (Page 2 lines 20-33, Figure 8)

The disclosed prior art does not teach a mechanism, specifically a bar attached to the vacuum pumps near the flexible pipe and supporting the bar and reducing the shrinking by attaching the bar to the floor, a coupling member connects between said an inlet pipe on said vacuum pump and said floor panel in a direction in which said flexible pipe extends and attached to a floor panel.

Sweeny teaches a mount for supporting a flexible hose that prevents damage to vacuum inlet pipe (i.e. elbow 11 and hose coupling 27) caused by tensile forces acting on the vacuum, the vacuum includes: a flexible pipe 16 attached to the vacuum by the vacuum inlet pipe (i.e. elbow 11 and hose coupling 27), coupling members (i.e. support rods 18, 18', 22, 24) connected between the vacuum inlet pipe (i.e. elbow 11 and hose coupling 27) and a floor panel (i.e. truck 23) in a direction in which the flexible pipe extends. (See figures 1 and 1a).

The motivation for supporting the vacuum inlet pipe is to keep all the components in place and to prevent damage from forces placed on the vacuum inlet pipe so that the vacuum inlet pipe will function as required and not be damaged in use as taught by Sweeny.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to support the vacuum inlet pipes in the apparatus of the AAPA to prevent movement and damage caused by forces applied to the vacuum inlet pipe as

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taught by Sweeny.

5. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Sweeny as applied to claims 1-8, and 10 above, and further in view of Elliotte, US Patent 2,663,894.

AAPA and Sweeny differ from the present invention in that they do not teach that the coupling member is a chain with a fixing block.

Elliotte teaches supporting the flexible hose 59 with sturdy beams 62 and chains 106 attached to fixing blocks 105 (see figure 1). It is also well known in the art that a load can be supported with a chain in tension.

The motivation for replacing a ridged rod of AAPA and Sweeny with a chain and fixing block as taught by Elliotte is to provide an alternate method of supporting a load.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to support the vacuum inlet pipes in the apparatus of the AAPA and Sweeny using a chain and fixing block as taught by Elliotte.

Response to Arguments

6. Applicant's arguments filed March 20, 2006 have been fully considered but they are not persuasive.

In regard to the arguments that Sweeny and Elliotte refer to cleaners and do not disclose or teach suppressing transmission of vibration from a vacuum pump to a vacuum chamber at a time of evacuation, the Examiner agrees. However, the suppressing transmission of vibration from a vacuum pump to a vacuum chamber is not claimed and therefore moot. The Examiner notes that the vibrations are caused by a

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structural failure in the supports of the vacuum, and Sweeny and Elliotte both teach structural means of supporting a vacuum system.

In response to applicant's argument that Sweeny and Elliotte are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, they are reasonably pertinent to the particular problem with which the applicant was concerned, specifically, structurally supporting the vacuum inlet pipe such that it does not move when the vacuum chamber is placed under a vacuum. Both Sweeny and Elliotte address the problem of supporting vacuum inlet pipes. Therefore, Sweeny and Elliotte are analogous art.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

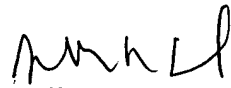
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrie R. Lund whose telephone number is (571) 272-1437. The examiner can normally be reached on Monday-Thursday (6:30 am-6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrie R. Lund
Primary Examiner
Art Unit 1763

JRL
5/30/06